

WHAT IS CLAIMED IS:

1. An image processing method comprising:

a feature value calculation step of calculating feature values of micro regions in a specified region having a pixel of interest at a center, from pickup results of an image pickup device that has a color filter with a particular color at each of pixels arrayed two-dimensionally;

an edge intensity value calculation step of calculating an edge intensity value in a neighborhood of the pixel of interest from the feature values of the micro regions calculated by the feature value calculation step;

a filter value calculation step of calculating a low-pass filter value of the pixel of interest from the image signal values of neighboring pixels which have a same color component as the pixel of interest; and

an image signal value correction step of correcting the image signal value of the pixel of interest by using the edge intensity value calculated by the edge intensity value calculation step and the low-pass filter value calculated by the filter value calculation step.

2. The image processing method according to claim 1, further comprising an edge intensity value correction step of correcting the edge intensity value calculated in the edge intensity value calculation step in accordance with an edge intensity correction curve, wherein the image signal value correction step corrects the image signal value of the pixel of interest by carrying out weighted addition of the image signal value of the pixel of interest and the low-pass filter value using the edge intensity values before and after the correction.

3. The image processing method according to claim 1, wherein the feature value calculation step, using image signal values output from R-color filter, G-color filter and B-color filter corresponding to the micro regions in the specified region, calculates the feature values of the micro regions.

4. The image processing method according to claim 1, wherein when carrying out color interpolation of an image of the pixel of interest using pixel signal values of neighboring pixels, the feature value calculation step, the edge intensity value calculation step, the filter value calculation step and the image signal value correction step carry out the correction of the image signal value of the pixel of interest.

5. An image processing method comprising:

a feature value calculation step of calculating feature values of micro regions in a specified region having a pixel of interest at a center, from pickup results of an image pickup device that has a color filter with a particular color at each of pixels arrayed two-dimensionally;

a binarization step of binarizing the feature values of the micro regions calculated by the feature value calculation step;

a contour detection step of detecting a contour using the feature values binarized by the binarization step; and

an image signal value correction step of correcting an image signal value of the pixel of interest using image signal values of a plurality of pixels including the pixel of interest in a same direction as the contour detected by the contour detection

step.

6. The image processing method according to claim 5, wherein the image signal value correction step corrects the image signal value of the pixel of interest by carrying out weighted addition of the image signal values of the plurality of pixels in the same direction as the contour.

7. The image processing method according to claim 5, wherein the contour detection step detects the contour by carrying out pattern matching of distribution of the feature values in the specified region binarized by the binarization step with preset binary distribution.

8. An image processing method comprising:

a feature value calculation step of calculating feature values of micro regions in a specified region having a pixel of interest at a center, from pickup results of an image pickup device that has a color filter with a particular color at each of pixels arrayed two-dimensionally;

a binarization step of binarizing the feature values of the micro regions calculated by the feature value calculation step;

a contour detection step of detecting a contour using the feature values binarized by the binarization step; and

a first image signal value correction step of correcting, when the contour is detected by the contour detection step, an image signal value of the pixel of interest using image signal values of a plurality of pixels including the pixel of interest in a same direction as the contour detected by the contour

detection step;

an edge intensity value calculation step of calculating,
when the contour is not detected by the contour detection step,
an edge intensity value in a neighborhood of the pixel of interest
5 from the feature values of the micro regions calculated by the
feature value calculation step;

a filter value calculation step of calculating a low-pass
filter value of the pixel of interest from the image signal values
of neighboring pixels which have a same color component as the
10 pixel of interest; and

a second image signal value correction step of correcting
the image signal value of the pixel of interest by using the
edge intensity value calculated by the edge intensity value
calculation step and the low-pass filter value calculated by
15 the filter value calculation step.